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PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) <b>77682-82 /jas</b>	
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Application Number <b>09/977,991</b>	Filed <b>October 17, 2001</b>	First Named Inventor <b>HASHEM, Bassam M. et al.</b>
Art Unit <b>2617</b>	Examiner <b>Nam Trung Huynh</b>	

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the  
 applicant/inventor.

assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

attorney or agent of record.  
Registration number **28,168**

attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

  
\_\_\_\_\_  
Signature  
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(613) 232-2486  
Telephone number  
\_\_\_\_\_  
**December 27, 2006**  
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below\*.

\*Total of \_\_\_\_\_ forms are submitted.

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**DEC 27 2006**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 09/977,991 Confirmation No. 4493  
Applicant : Nortel Networks Limited  
Filed : October 17, 2001  
TC/A.U. : 2617  
Examiner : Nam Trung Huynh  
  
Docket No. : 77682-62  
Customer No. : 07380

Commissioner for Patents  
Alexandria, VA 22313-1450  
U.S.A.

Dear Sir:

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Applicant requests review of the final rejections issued in connection with the above-identified application on July 27, 2006.

Claims 1-30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,487,174 to Persson in view of United States Patent No. 6,804,213 to Zimmermann et al.

Applicant respectfully submits that there are clear errors in the above rejections, and that the three essential criteria to establish a *prima facie* case of obviousness have not been met.

To begin, the Examiner has conceded "Persson does not explicitly disclose storing an uplink and downlink candidate list of base stations and selecting at least one optimum base station from the candidate list for both directions of traffic". In essence, the Examiner is conceding that all of the steps of claim 16 and claim 24 are not explicitly disclosed in Persson and a great many of the steps of claims 1 and 9 are not disclosed in Persson. The Examiner relies on Zimmermann et al. to provide these features. Applicant points out that the present invention is directed to methods, base station controllers and computer readable articles of manufacture that determine and maintain an uplink candidate set and a downlink candidate set of base stations and select at least one base station from the uplink candidate set and the downlink candidate set for communicating with a terminal in a wireless communications network, while the primary

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reference that has been cited by the Examiner, namely Persson, is directed to methods that independently select an uplink base station and a downlink base station during a handoff procedure in a cellular communications network. The secondary reference relied on by the Examiner, namely Zimmermann et al., is directed to cordless telephone systems and methods of controlling a cordless telephone system that determine a list of candidate channel pairs for communication between a cordless telephone and a fixed transceiver based on signal interference measurements of all of the channel pairs available to the cordless telephone.

On page 3, line 23 to page 4, line 10 of the response dated May 10, 2006, Applicant pointed out that a cordless telephone system is non-analogous to a cellular communications network. In paragraph 5 of the final action, the Examiner in attempting to refute Applicant's argument, states that "it is well known in the art that a cordless telephone system can be a cellular mobile communication system." However, Applicant submits, with respect, that the Examiner has clearly erred in holding Zimmermann et al. analogous art to Persson for Zimmermann et al. explicitly states that the "handover" procedure of a cordless telephone system is completely non-analogous to the "handover" procedure of a cellular communications network according to Persson. For example, column 2, lines 6 to 15 of Zimmermann et al. state that

"[a]lthough the term "handover" is sometimes used for such a switching procedure, it should be noted that such a handover in a cordless telephone system is completely different from an existing handover in a cellular network, handover in a cellular network, e.g. an intercell handover. More specifically the intercell handover means that the communication between a given base station and a given mobile station is handed over to a different base station, whereas a call connection between the fixed part and a mobile station remains between these two entities in the case of a CTS switching procedure." (emphasis added)

In view of the foregoing, Applicant asserts that the first two essential criteria to establish a *prima facie* case of obviousness have not been met. Firstly, there is no suggestion or motivation in the references or in the knowledge generally available to one of ordinary skill in the art to modify Persson or to combine Zimmermann et al. with Persson. Nor is there a reasonable expectation of succeeding in arriving at the claimed invention.

Furthermore, Applicant asserts that the third essential criterion to establish a *prima facie*

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case of obviousness has not been met, namely the claimed references together do not teach or fairly suggest all of the claim limitations.

In rejecting claims 1, 9 and 16, the Examiner asserts that "[t]he [mobile switching center] MSC also monitors traffic channels and is capable of allocating either downlink or uplink traffic channels to respective base stations (column 18, lines 4-23 [of Persson]). Therefore, rendering the determination of the predominant direction of traffic." However, as Applicant argued on pages 1 and 2 of the response dated May 10, 2006, this section of Persson, and Persson as a whole, fails to teach or fairly suggest the feature which the Examiner asserts that it does, namely "rendering the determination of the predominant direction of traffic." In paragraph 4 of the final action, the Examiner has attempted to address Applicants arguments by equating the independent monitoring of uplink and downlink parameters taught by Persson with the determination of a predominant direction of traffic recited in claims 1 and 9. Specifically, the Examiner has stated that Persson "shows that both the uplink and downlink parameters are monitored and handoff (i.e. a base station selection) is performed for an uplink or downlink direction independently from one another. Therefore, if a downlink parameter exceeds a desired threshold, which would show a predominant direction of traffic in the downlink direction with respect to the terminal, the MSC attempts to handoff, or perform the selection of a suitable base station to serve the mobile station."

Applicant submits that the Examiner is clearly in error in equating these two features, as is clearly demonstrated by the example shown in Figure 3 of Persson. According to the teachings of Figure 3 of Persson, a mobile station Mx is being served by a first base station B1 on the downlink and is being served by a second base station B2 on the uplink. As the mobile station moves closer to a third base station B3, the signals from the mobile station Mx received at the base station B3 become stronger than the signals from the mobile station Mx received at the base station B2 and therefore a handoff of the uplink between B2 and B3 is initiated (see Figure 3 and column 15, lines 16-41 of Persson). Clearly, the handoff from the second base station B2 to the third base station B3 is a result of the strength of the radio signals received at the third mobile station B3 and at the second mobile station B2, and hence the proximity of the mobile station Mx to the third base station B3 in comparison to the proximity of the mobile station Mx to the second base station B2, and not a result of a determination of the predominant direction of traffic of the mobile station Mx as recited in claims 1 and 9.

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With regard to claims 7, 15, 22 and 30, beginning at the last paragraph on page 4 of the response dated May 10, 2006, Applicant pointed out that claims 7, 15, 22 and 30 specify "determining a current load of each base station in the uplink candidate set; and selecting from the uplink candidate set at least one optimum base station that has the lowest current load" and also specify the same process for selecting an optimum downlink base station. In paragraph 6 of the detailed action, the Examiner has once again equated making handoff decisions based on parameters including estimated signal strength according to Persson with the load balancing recited in claims 7, 15, 22 and 30. In making this erroneous assertion, the Examiner has once again incorrectly stated that "it is well known in the art that a base station load can be determined by the signal strength because a low signal strength would indicate a high load". Applicant points out that according to the teachings of Persson, only the downlink handoff is determined by the strength of signals received from the base station by the mobile station (see column 17, lines 53-61), while the uplink handoff is determined by selecting the base station that requires the lowest output power of radio signals from the mobile station (see column 18, lines 1-3). Therefore, there is no way that "determining a current load of each bases station in the uplink candidate set" can be achieved by simply monitoring signal strengths either to or from a base station.

In addition, regardless of the distinction between uplink handoff and downlink handoff, the Examiner is completely incorrect in asserting that "a base station load can be determined by the signal strength because a low signal strength would indicate a high load". As discussed above with regard to the Examiner's rejection of claims 1, 9 and 16, Figure 3 and column 15, lines 16-41 of Persson explicitly state that the received signal strength at both the base station and the mobile station is a strong function of location, therefore while a first base station may be under very heavy load, if a mobile station is close to the first base station the mobile station is very likely to receive a much stronger signal from the first base station than from a second base station which the mobile station is far from, regardless of whether or not the second base station is currently under heavy load. Therefore, the Examiner is incorrect in stating that a base station load can be determined by simply monitoring signal strength.

In view of the foregoing, Applicant submits that the rejection of claims 1-30 is clearly in error, as the three essential elements for establishing a *prima facie* case of obviousness have not been met in the rejection of claims 1-30. Reconsideration and withdrawal of the rejection of

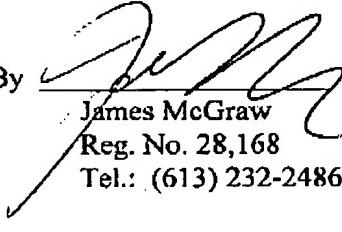
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claims 1-30 are respectfully requested.

Claims 1-30 are believed to be allowable over Persson and Zimmermann et al., and early action to this end is respectfully requested.

Respectfully submitted,

BASSAN HASHEM, ET AL.

By 

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Date: December 27, 2006  
JMC:JFS:bbp